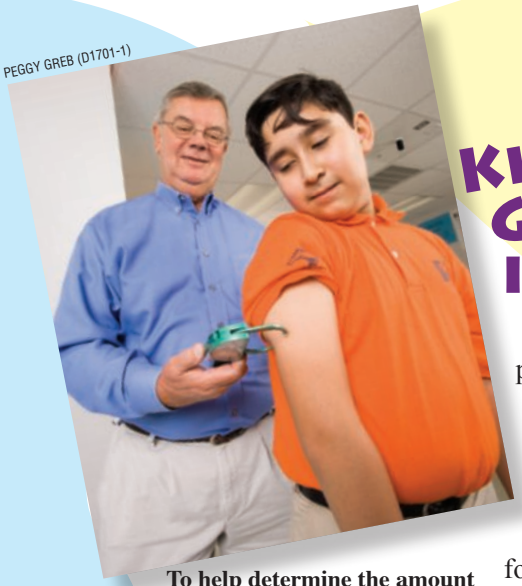
PEGGY GREB (D1701-1)



Kids Lose Pounds, Gain Fitness, in Science-Based Regimen

To help determine the amount of body fat, John Foreyt, professor of medicine at Baylor College of Medicine, takes a tricep skinfold measurement of a Houston middle school student participating in a health and nutrition study.

Real-life successes resulted for many Texas middle-schoolers who volunteered for an innovative, ARS-funded study. Kid-oriented strategies helped the children lose weight and gain nutrition savvy—plus physical fitness skills.

Craig Johnston, John Foreyt, Chermaine Tyler, and their co-investigators created the regimens for sixth and seventh graders enrolled in a Houston charter school mainly attended by Hispanic youngsters.

"We targeted young Hispanics, age 10 to 14 years," says Johnston, "because of the high rate of overweight among kids and adults in this minority group."

The research was done at the ARS Children's Nutrition Research Center at Baylor College of Medicine in Houston, where Johnston and Tyler are instructors in nutrition and Foreyt is a professor of medicine.

Statistics reported for the 6-month study are based on 57 overweight kids who were assigned to either a self-and-parent-taught plan or an intensive, instructor-led program. For example, kids in the self-taught group spent time in study hall, once a week for the first 3 months of the investigation, reading a self-help weight-management textbook for youngsters. Meanwhile, their peers in the instructor-led team spent four class periods a week outdoors, improving their physical fitness, with a fifth session each week—indoors—learning about nutrition, healthy eating, and behavior-change skills essential for living actively and making healthful food choices.

During the final 3 months of the study, kids, parents, and members of their extended families could participate in various follow-up activities, including nutrition and fitness discussions in their homes, conducted in both English and Spanish.

When evaluated at the end of the 6-month venture, kids in the intensive, instructor-led course had significantly greater weight loss as well as greater "physical quality of life"—as measured by their answers to a standard questionnaire—than did the self-taught kids.

Was their success lasting?

To find out, scientists checked back at 1 and 2 years after the start of the study. Kids in the instructor-led team had significantly greater decreases in their body mass index, or BMI (a height-and-weight-based formula that gives an indication of body fatness), at those checkpoints than did the self-taught youngsters.

"More than 79 percent of the kids in the instructor-led cohort *decreased* their BMI in the first year—and 62 percent at 2 years," says Johnston. That was in contrast to the self-help kids: 64 percent *increased* their BMI in the first year and 65 percent *increased* BMI at 2 years.

The statistics from the instructor-led group make the study "one of the few, with Hispanic youngsters, to show sustained success with weight loss and weight management," says Foreyt. "Overall, these preliminary results suggest that a school-based weight-management program might be effective in reaching large numbers of kids. In this instance, we were able to build on the physical education and health education classes already in place. And we had the advantage of working with a school that already had strong ties to the Hispanic community and in which teachers act as extended-family members."

The researchers and their colleagues have reported their findings in the journals *Obesity* and *Pediatrics*.—By **Marcia Wood,** ARS.

This research is part of Human Nutrition, an ARS national program (#107) described at www.nps.ars.usda.gov.

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Craig Johnston, nutrition instructor at Baylor College of Medicine, assesses the blood pressure of a study volunteer.